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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,725	04/09/2004	Dylan Jay	4002121-A-01-US (Jay)	1514
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JOHN C. MORAN, ATTORNEY, P.C. 4120 EAST 115 PLACE THORNTON, CO 80233-2623			EXAMINER GAY, SONIA L	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/821,725	Applicant(s) JAY ET AL.	
	Examiner SONIA GAY	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-5,7,12,15-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,8-11,13,14,21 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This action is in response to the Amendment filed on 03/30/2009. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

1. Applicant's amendment filed on 03/30/2009 has been entered. Claims 6, 11, and 21 have been amended. Claims 1-5, 7, 12, 15 – 20, and 22 have been canceled. No claims have been added. Claims 1 – 25 are still pending in this application, with claims 6, 11, and 21 being independent.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 21 and 23-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21 and 23-25 which recite "a computer - readable medium comprising computer-executable instructions configured for" appear to be directed to software which is not patentable, per se MPEP 2106.01. To comply with 35 U.S.C. 101, computer programs must be both tied to another statutory category and executed by a processor, i.e. --a computer readable medium comprising computer-executable instructions which, when executed by a processor, perform the steps of --

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6, 11, and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 6, 11, and 21 contain the newly added limitation "by transmission of a message which contains no audio information from the active participant." No where in the specification does it either recite "the message contains no audio information from the active participant" or suggest what information is not contained within the transmitted message.

On page 5, lines 17 – 25 of the specification :

Location 103 has participants 110-111 participating in the telecommunication conference call via IP telephone set 112. IP telephone set 112 transmits the fact that a speaker phone is being utilized to conference circuit 120 via WAN 102, LAN interface 118, and switch network 119 or via the path WAN 102, LAN interface 118, switch network 119, and controller 122. In addition, IP telephone set indicates to conference circuit 120 when it is transmitting audio voice information

On page 6, lines 1-8 and 19 -28 of the specification:

Conference circuit 120 utilizes the information concerning whether or not there is voice in the audio stream coming from IP telephone set 112 to make the determination whether it is necessary to attempt speaker identification or not. Conference circuit 120 would utilize the information from IP telephone set 112 that the speaker had changed at location 103 to commence a signal processing algorithm to identify the new speaker.

Telephone set 114 is utilizing a speaker phone to allow participants 116 and 117 to participate in the telecommunication conference. Remote switch 113 determines when there is audio voice information being received from analog telephone set 114 and signals this fact to conference circuit 120. In addition, remote switch 113

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performs a simple identification algorithm to determine when the speaker changes between participant 1 16 and 1 17. This information is also transmitted to conference circuit 120 by remote switch 113.

On page 8, lines 9 - 22 of the specification:

When processor 209 during the execution of IP application 207 determines that speakerphone 212 is being utilized, processor 209 starts the execution of conference control routine 204. In turn conference control routine 204 starts the operation of speaker detection routine 205. Speaker detection routine 205 is continuously monitoring the audio information coming from speaker phone 212 via interface 216 to determine if a new speaker has commenced speaking. If speaker detection routine 205 determines that a different speaker is now speaking, speaker detection routine 205 via operating system 202 and interface 214, network 102 sends a message to controller 122 indicating that a different speaker is now speaking on IP telephone 112.

On page 11, lines 27 – 29 of the specification:

Returning to decision block 604, if the answer is no, decision block 608 determines if a speaker change message has been received from an IP telephone or a remote switch.

On page 13, lines 3 – 11 of the specification:

Returning to decision block 702, if the answer is no in decision block 702, control is transferred to decision block 706. Decision block 706 determines when a speaker change has occurred at the IP telephone set. This change is determined by the speaker detection routine 205 of FIG. 2. If the answer is yes in decision block 706, control is transferred to block 705 which sends a speaker change message to the central controller before returning control back to decision block 702.

On page 14, lines 12– 20 of the specification:

Returning to decision block 802, if the answer is no in decision block 802, control is transferred to decision block 806. Decision block 806 determines when a speaker change has occurred as detected by the DSP. This change is determined by the speaker detection routine 314 of FIG. 3. If the answer is yes in decision block 806, control is transferred to block 805 which sends a speaker change message to the central controller before returning control back to decision block 802.

Claim Rejections - 35 USC § 103

4. Claims 6, 8-10, 21, and 23 - 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penzias (US 5,450,481) in view of Frank et al. (US 2002/0091517), and further in view of Shaffer et al. (US 6,853,716).

For claims 6 and 21, Penzias discloses a method and a computer- readable medium (Abstract; column 5 lines 3 - 9) for performing participant identification in a conference of a plurality of participants, comprising the steps of: performing a simple speech algorithm to detect a change in active participant among a set of the plurality of participants using an endpoint telecommunication unit whereby the speech algorithm determines the change in the active participant (column 7 lines 22 – 54); signaling the detected change to a conference unit by the endpoint telecommunication unit by transmission of message which contains no audio information from the active participant (*conference tracker*, Fig.1 28, column 3 lines 25 - 40; column 7 lines 22 - 54); and determining the identify of a new active participant of the set of plurality of participants (column 8 lines 1 – 46);

Yet, Penzias fails to teach whereby the speech algorithm only determines the change and not the identity; and the conference unit performs voice recognition to identify the new active participant in response to the signaled change whereby the conference unit processes speech information from only the endpoint telecommunication unit.

However, Frank et al. discloses a method for processing continuous human speech wherein speaker change detection and speaker recognition are separated into separate and distinct apparatuses/processes, a utterance analyzer and change detector and a speech recognition

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system, for the purpose of reducing the use of processing resources including the time consuming speaker recognition mechanism (Fig.3, 320 and 330; Abstract; [0014] [0039]

Moreover, Shaffer et al. discloses a method for the purpose of identifying a participant during a conference call wherein a conference unit performs voice/speaker recognition to identify the new active participant whereby the conference unit processes speech information from only the endpoint telecommunication unit (column 4 lines 6 - 26; column 5 lines 12 - 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the teachings of Penzias with the teachings of Frank et al. and Shaffer et al. so that the functionality of the speech algorithm disclosed above in Penzias which encompasses both speaker change detection and speaker recognition can be separated into two apparatuses with one located at the endpoint and the other located at the remote conferencing unit wherein the voice/speaker recognition is performed at the remote conferencing unit for the purpose of identifying a participant during a conference call while reducing the processing time and resources involved in voice/speaker recognition.

For claims 8 and 23, Shaffer et al. further discloses wherein the endpoint telecommunication unit is a telecommunication terminal (Shaffer et al., column 4 lines 40 - 47).

For claims 9 and 24, Penzias further discloses wherein the endpoint telecommunication unit is a remote switch connecting a telecommunication terminal used by a subset of the plurality of participants to the conference unit (Penzias, column 3 lines 33 – 40).

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For claims 10 and 25, Penzias further discloses wherein the step of detecting comprises determining a use of a speaker phone on the endpoint telecommunication unit (Penzias, column 4 lines 20 - 31).

5. Claims 11 and 13 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penzias (US 5,450,481) in view of Frank et al. (US 2002/0091517), and further in view of Shaffer et al. (US 6,853,716).

For claim 11, Penzias discloses a system for providing a conference, comprising: a conference unit (*conference tracker*, Fig.1, 28; column 3 lines 23 - 51); a plurality of endpoint telecommunication units (*conventional telephone set with conference tracker*, Fig.1, 28; column 3 lines 23 - 51; column 4 lines 21 - 31); a system controller establishing the conference for a set of participants using a plurality of endpoint telecommunication units (*digital signal processor and control interface*, Fig.2, 12 and 22; column 3 lines 41 - 51, 62- column 4 line 20 column 5 lines 3 - 31); one of the plurality of endpoint telecommunication units providing service for a subset of the set of the plurality of participants performing a simple speech algorithm to detect a change in active participant among a set of the plurality of participants using an endpoint telecommunication unit whereby the speech algorithm determines the change in the active participant (column 7 lines 22 - 54); signaling the detected change to a conference unit by the endpoint telecommunication unit by transmission of message which contains no audio information from the active participant (column 3 lines 25 - 40; column 7 lines 22 - 54); and system controller responsive to request the conference unit identify the new active participant of the subset of the set of the plurality of participants (column 8 lines 1 - 46).

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Yet, Penzias fails to teach whereby the speech algorithm only determines the change in speaker and not the identity; and the conference unit performs voice recognition to identify the new active participant in response to the signaled change whereby the conference unit processes speech information from only the endpoint telecommunication unit.

However, Frank et al. discloses a method for processing continuous human speech wherein speaker change detection and speaker recognition are separated into separate and distinct apparatuses/processes, a utterance analyzer and change detector and a speech recognition system, for the purpose of reducing the use of processing resources including the time consuming speaker recognition mechanism (Fig.3, 320 and 330; Abstract; [0014] [0039]

Moreover, Shaffer et al. discloses a method for the purpose of identifying a participant during a conference call wherein a conference unit performs voice/speaker recognition to identify the new active participant whereby the conference unit processes speech information from only the endpoint telecommunication unit (column 4 lines 6 - 26; column 5 lines 12 - 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the teachings of Penzias with the teachings of Frank et al. and Shaffer et al. so that the functionality of the speech algorithm disclosed above in Penzias which encompasses both speaker change detection and speaker recognition can be separated into two apparatuses with one located at the endpoint and the other located at the remote conferencing unit wherein the voice/speaker recognition is performed at the remote conferencing unit for the purpose of identifying a participant during a conference call while reducing the processing time and resources involved in voice/speaker recognition.

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For claim 13, Shaffer et al. discloses wherein the endpoint telecommunication unit is a telecommunication terminal (Shaffer et al., column 4 lines 40 - 47).

For claims 14, Penzias further discloses wherein the endpoint telecommunication unit is a remote switch connecting a telecommunication terminal used by a subset of the plurality of participants to the conference unit (Penzias, column 3 lines 33 – 40).

Response to Arguments

6. Applicant's arguments with respect to claims 6, 8-11,13 – 14, 21, and 23 - 25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONIA GAY whose telephone number is (571)270-1951. The examiner can normally be reached on Monday to Thursday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sonia Gay/

Examiner, Art Unit 2614

/Ahmad F Matar/

Supervisory Patent Examiner, Art Unit 2614